

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A dual phone, comprising:

an integrated ~~service~~ services digital network (ISDN) phone unit including a first connector to connect to an ISDN;

an IP phone ~~circuit~~ unit including a second connector to connect to the Internet or a computer, the ISDN phone unit being different than the IP phone unit; and

a control unit which recognizes an ISDN mode, an IP mode[[, or]] and an external connection mode by analyzing input data and the control unit controls a voice signal path between the ISDN phone unit and the IP phone unit based on the recognized mode.

2. (Currently Amended) The dual phone of claim 1, further comprising:

a connecting unit which switches the voice signal path between the ISDN phone ~~circuit~~ unit and the IP phone unit and performs data exchange between the ISDN phone unit and the IP phone unit.

3. (Currently Amended) The dual phone of claim 1, wherein the ISDN phone unit comprises:

an interface for establishing a connection with the ISDN;

a high-level data link controller (HDLC) for framing/deframing data from the interface; and

a first microprocessor ~~which generally~~ that controls the ISDN phone unit and transports the deframed data to the IP phone unit.

4. (Currently Amended) The dual phone of claim 3, wherein the ISDN phone unit further comprises:

a first codec (coder/decoder) ~~which~~ that converts frame data from the interface into a voice signal and converts an externally input voice signal into pulse code modulation (PCM) data; and

a handset/speaker phone unit for inputting/outputting the voice signal to/from the first codec under the control of the first microprocessor.

5. (Original) The dual phone of claim 2, wherein the connecting unit comprises:
a data communication unit for exchanging data between the IP phone unit and the ISDN phone unit;

a voice signal connecting unit for switching a path of the voice signal between the ISDN phone unit and the IP phone unit based on a control signal from the control unit; and

a key input unit for transporting key input data input from a user to the control unit.

6. (Currently Amended) The dual IP-phone of claim 5, wherein the data communication ~~circuit~~ unit comprises a serial port.

7. (Original) The dual phone of claim 5, wherein the data communication unit comprises a bi-directional memory.

8. (Original) The dual phone of claim 5, wherein the connecting unit further comprises:

a hook on/off switch; and

a display unit for providing a visual display under control of the control unit.

9. (Currently Amended) The dual phone of claim 1, wherein the IP phone unit comprises:

a second microprocessor ~~which~~ that controls a calling party of the recognized external connection mode to generate a dial tone;

a second codec for simultaneously/independently converting voice signals input from the ISDN phone unit and external devices into PCM data; and

a digital signal processor (DSP) ~~which that~~ generates and provides to the calling party the dial tone under control of the second microprocessor, receives and format-converts data from the second codec, and provides the converted signal to the second microprocessor.

10. (Currently Amended) The dual IP-phone of claim 9, wherein the second codec ~~has is coupled to~~ two voice signal paths.

11. (Currently Amended) The dual phone of claim 10, wherein the voice signal in the IP mode ~~and is input to a different voice signal path than in an external connection mode is input to different voice signal paths, respectively.~~

12. (Original) The dual phone of claim 1, wherein the IP phone unit includes a connector for establishing a connection with the Internet.

13. (Original) The dual phone of claim 12, wherein the IP phone unit includes a connector for establishing a connection with a computer.

14. (Currently Amended) A method of telecommunicating using a dual phone in which an integrated ~~service services~~ digital network (ISDN) phone unit and an IP phone unit are included in a single device, the ISDN phone unit including a first interface with an ISDN, the IP

phone unit being separate from the ISDN phone unit and including a second interface with the Internet or a computer, the method comprising:

selecting at least one of an ISDN mode, an IP mode, and an external connection mode;

if a user of an external ISDN phone requests an origination call in the external connection mode, connecting a data and voice signal path between the ISDN phone unit and the IP phone unit;

confirming whether the user is an authenticated subscriber based on information regarding a called party and a password input from the user; and

if the user is the authenticated subscriber, confirming an IP address of the called party based on the called party information and connecting the user and a terminal of the confirmed IP address by transmitting the origination call to the terminal of the IP address.

15. (Currently Amended) The method of claim 14, further comprising:

providing a dial tone to an external connection requester after ~~automatic~~ connection is established between the ISDN phone unit and the IP phone unit; and

inputting the password and a destination phone number of the called party after the dial tone.

16. (Currently Amended) The method of claim 14, further comprising:
simultaneously coding voice signals from the external connection requester and an
external device of the dual IP-phone unit if the IP mode and the external connection mode are
set;
converting coded data into a standard data format for the respective called party;
and
selectively storing the data format to match data transmission rates between the
external connection requester and the called party of the IP address.

17. (Currently Amended) A method for processing calls in a phone ~~which~~ that
includes an ISDN phone unit and an Internet phone unit, the ISDN phone unit including a first
interface with an ISDN, the IP phone unit being separate from the ISDN phone unit and
including a second interface with the Internet or a computer, the method comprising:
receiving a signal selecting a mode of operation of the phone; and
automatically establishing a voice path between the Internet phone unit and the
ISDN phone unit in said ~~selecting~~ selected mode when a user enters an external connection
request with ~~the call~~ a called party.

18. (Currently Amended) ~~The method of claim 17, a~~ A phone, comprising:
a first phone unit which operates in a ~~first communications~~ an ISDN mode;
a second phone unit which operates in a ~~second communications~~ an IP mode; and

a control unit which establishes a voice path between the first phone unit and the second phone unit based on a user mode selection signal, the user mode selection signal selecting one of an ISDN mode, an IP mode or an external connection of the phone.

19. (Canceled).

20. (Original) The phone of claim 18, wherein the control unit activates one of the first phone and the second phone unit and de-activates the other of the first phone unit and the second phone unit in response to another user mode selection signal.

21. (New) The phone of claim 18, wherein the ISDN phone unit corresponds to TE1 in the ISDN.

22. (New) The phone of claim 18, wherein the ISDN phone unit accesses an ISDN simultaneously as the IP phone unit accesses the Internet or a computer.

23. (New) The dual phone of claim 1, wherein the ISDN phone unit corresponds to TE1 in the ISDN.

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24. (New) The dual phone of claim 1, wherein the ISDN phone unit accesses the ISDN simultaneously as the IP phone unit accesses the Internet.

25. (New) The method of claim 14, further comprising simultaneously accessing the ISDN through the ISDN phone unit and the Internet or the computer through the IP phone unit.